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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,833	09/23/2003	Michael T. Rowan	68865.001002	4989

21967 7590 07/03/2007
HUNTON & WILLIAMS LLP
INTELLECTUAL PROPERTY DEPARTMENT
1900 K STREET, N.W.
SUITE 1200
WASHINGTON, DC 20006-1109

EXAMINER

GU, SHAWN X

ART UNIT	PAPER NUMBER
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2189

MAIL DATE	DELIVERY MODE
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07/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	Application No. 10/668,833	Applicant(s) ROWAN ET AL.	
	Examiner Shawn X. Gu	Art Unit 2189	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 18 June 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
 b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

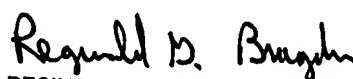
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: 1-29.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
 13. ☐ Other: _____.


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Continuation of 11. does NOT place the application in condition for allowance because: Regarding the enablement rejection of claims 1-29, the Applicant used an example on page 7 of the remarks to illustrate how "any point during the continuous period of time" can be specified by the claimed invention. The key question to raise regarding this example is: how does the invention ensure that every write to the storage occurs at a precise point in time such as 12:44:55 that can be recorded by the claimed invention? Today's computer products execute at speeds that can be measured in gigahertz per second while using nano-seconds and even pico-seconds as the units of time measurements, and still they cannot possibly record any event that occurs at "any point in time in a continuous time interval". This is because real-time events do not occur based on discrete time units or time intervals. Real-time events can only be recorded in discrete time units by either rounding or approximating the real-time to the closest discrete time. If such recording cannot even be made, how can the Applicant's claimed invention identify and restore what was stored on a storage at any point during the continuous period of time? To make the matter more clear, in the example the Applicant assumed the write command was recorded since or at 12:44:55. But the time that the invention recorded is not necessarily the exact real world time in a continuous time frame that this write event occurred. In other words, assuming the claimed invention is only capable of recording up to seconds, or even micro-seconds, does that mean the actual writes and the actual changes of storage content occurred only at the start or end of a second or a micro-second? What provides the invention the ability to guarantee that the actual changes to the storage occurs only at precise discrete times that the claimed invention is capable of recording? In the example the recorded write command occurred at 12:44:55, but how does the invention forbid the write to actually occur at 12:44:54.000000000001 or 12:44:54.0000000002. And if the write occurred at one of those two times or any other time that is not exactly 12:44:55 but infinitely approaches 12:44:55, the claimed invention will have no means to record the state of the storage at that precise point in time in a continuous time interval, then the claimed invention will be unable to identify historic data that were present at 12:44:54.0000000001 or 12:44:54.0000000002. From the example given by the Applicant, it now appears that the claimed invention only approximates or rounds the real/actual point in time when the write occurs to a value that the claimed invention is capable of recording. Therefore, it is very clear that the claimed invention lacks the enablement to specify historic data in a storage at "any point during a continuous period of time" and the claimed invention appears to be mathematically and physically impossible.

Regarding the anticipation rejection of claims 1-10, 13-15 and 21-29, the Applicant failed to provide any reasoning why Wu lacks the two features listed on page 8 of the remarks. However, an argument to the Applicant's assertion is provided as follows:

Regarding the first assertion, which states "Wu relies on volume-level snapshots and has not disclosed or even suggested a data protection technique, as presently claimed, that can dispense with volume-level snapshots", the Applicant is respectfully reminded that none of these above features is actually claimed in any of the claims 1-29. Hence, no anticipation rejection or response of argument is required from the Examiner.

Regarding the second assertion, which states "Wu does not teach or suggest the use of backup data to restore any portion of a data store to any point in time", the Applicant is again respectfully reminded that this feature is not actually claimed by any of claims 1-29. Instead, claims 1, 14 and 21 recite identifying historic data that were present in "a specified portion of the plurality of units of storage at any point during the continuous period of time ...". The actual claimed invention was properly rejected in the Office action mailed on 17 April, 2007.

Regarding the Applicant's statement that the finality of the previous Office action was improper, the Applicant is respectfully reminded that the argument presented in the remarks filed on 23 January 2007 was directed only to the then newly added limitations, which were properly rejected using new grounds of rejection in the Office action mailed on 17 April, 2007. Therefore the finality was proper since no argument from the Examiner was necessary.

As for the obviousness rejection of claims 11, 12 and 16-20, since no further argument was provided by the Applicant regarding these claims, the rejection is maintained and no further argument is provided by the Examiner.